

## Light Brown Apple Moth (LBAM) Response

### Current LBAM Status in San Luis Obispo County:

As of April 2008, San Luis Obispo County is not considered to be infested with the LBAM and no quarantine has been initiated within the county. Trapping surveys have been underway since April of 2007 by County Agricultural Commissioner's (CAC) Staff. A single male LBAM was detected in Cambria in October 2007, however, this single moth did not constitute an infestation nor did it initiate a quarantine situation. Subsequent trapping data has been negative countywide.

Incoming plant material is being inspected by the CAC to ensure that plants entering the county are free from the LBAM. The CAC is requesting receivers of plant material from LBAM infested areas contact the nearest CAC office and request an inspection:

Arroyo Grande	(805)473-7090
San Luis Obispo	(805)781-5910
Templeton	(805)434-5950

### History:

The LBAM is a native to Australia and has spread to other areas including New Zealand, New Caledonia, Great Britain, Hawaii, and now, parts of California. The moth was first detected in California in early Spring 2007 in the San Francisco Bay Area prompting a statewide survey conducted by CAC staff under the authority of the California Department of Food and Agriculture (CDFA). As of April 1, 2008, LBAM has been detected in 13 California counties.

The presence of LBAM in California resulted in the implementation of a California Interior Quarantine regulating the movement of host material within the State. In addition, a Federal Order was implemented regulating movement of host material between states. The requirements for host material moved out of the United States are regulated by the destination country.

An LBAM quarantine can be triggered by one or more of the following:

- Detection of two or more LBAM moths detected within 3 miles of each other during a single life cycle or
- Detection of a mated female LBAM or
- Detection of one or more LBAM larva confirmed by DNA testing

While a single moth find does not trigger a formal quarantine situation, added survey efforts are required to determine whether or not an actual infestation exists.

Eradications efforts have been implemented by CDFA utilizing ground treatments of both *Bacillus thuringiensis* and a mating disrupting pheromone (pheromone impregnated twist ties). Aerially applied treatments of the pheromone have also been used. The level of infestation determines the type of treatment used.

### Host Selection:

The LBAM, *Epiphyas postvittana*, is a lepidopteran pest completing its life cycle on a variety of crops, ornamental and native plants. The host list for this pest exceeds 250 crops and many more ornamental and native species. Some of the hosts for this pest include:

- Crops
  - Avocado, Almond, apple, cherry, citrus, nectarine, peach, pear, plum, walnut, blackberry, blueberry, grape, kiwi, strawberry, cole crops, and tomato.
- Ornamentals and Natives-
  - Camellia, ceanothus, euonymus, jasmine, photinia, pittosporum, rhododendron, rosa, coast redwood, eucalyptus, fir, holly, oak, pine, poplar, spruce and willow.

### Regulatory Requirements:

When a quarantine has been triggered, a quarantined area is defined as a 1.5 mile radius from the find site. Additional pest finds away from the original site, increases the area of the quarantine. A separate set of requirements has been established for producers/nurseries falling both inside and outside of the quarantine boundaries. A compliance agreement stating that the producer/nursery has met all of the requirements will be issued after verification by CDFA or the CAC.

Staff from the United States Department of Agriculture, CDFA, and the CAC will aid producers and nurseries in meeting shipping requirements and obtaining a compliance agreement. Depending on a variety of factors, such as location of operation, type of operation, commodity, and the destination of the product, the following conditions may be included in the compliance agreement:

- Establishment of an integrated pest management program
- Maintenance of production records or records of receipt
- Assurance that all compliance paperwork accompanies any outgoing commodity shipments
- Notification to CDFA or CAC when any plant or product is found to be infested with LBAM
- Treatment of infested property (possibly requiring a permit issued by the CAC)
- Initial and periodic inspections by USDA, CDFA, or CAC staff
- Allowance for CDFA staff to deploy traps for the detection of LBAM on the property

In some areas, industry has funded additional staffing to facilitate inspections within their nurseries or cropland. The California Conservation Corps is one such entity where additional help has been drawn from.

The movement of commodities to destinations outside the United States depends highly on the requirements of the destination country. The CAC can aid in interpreting the requirements of a given country and issue certification if all requirements are met.

Eradication:

The eradication efforts for the LBAM are under the authority and control of CDFA. Under an emergency exemption, CDFA has initiated eradication efforts in all infested counties utilizing treatments as listed above. The use of certain methods has brought about a high level of opposition with groups and individuals protesting aerially applied pheromones due to the potential for human health issues.

Currently an environmental impact report is being compiled to address the use of the aerially applied pheromone. Studies are being conducted in New Zealand to produce toxicological data for analysis of the impact on human health. No study data will be made available until all studies have been completed.